Non-optimized

Optimized

DNA precursor

RNA replicon
precursor

processed RNA

NUCLEUS

CYTOPLASM

defective RNA:
no replication/expression of
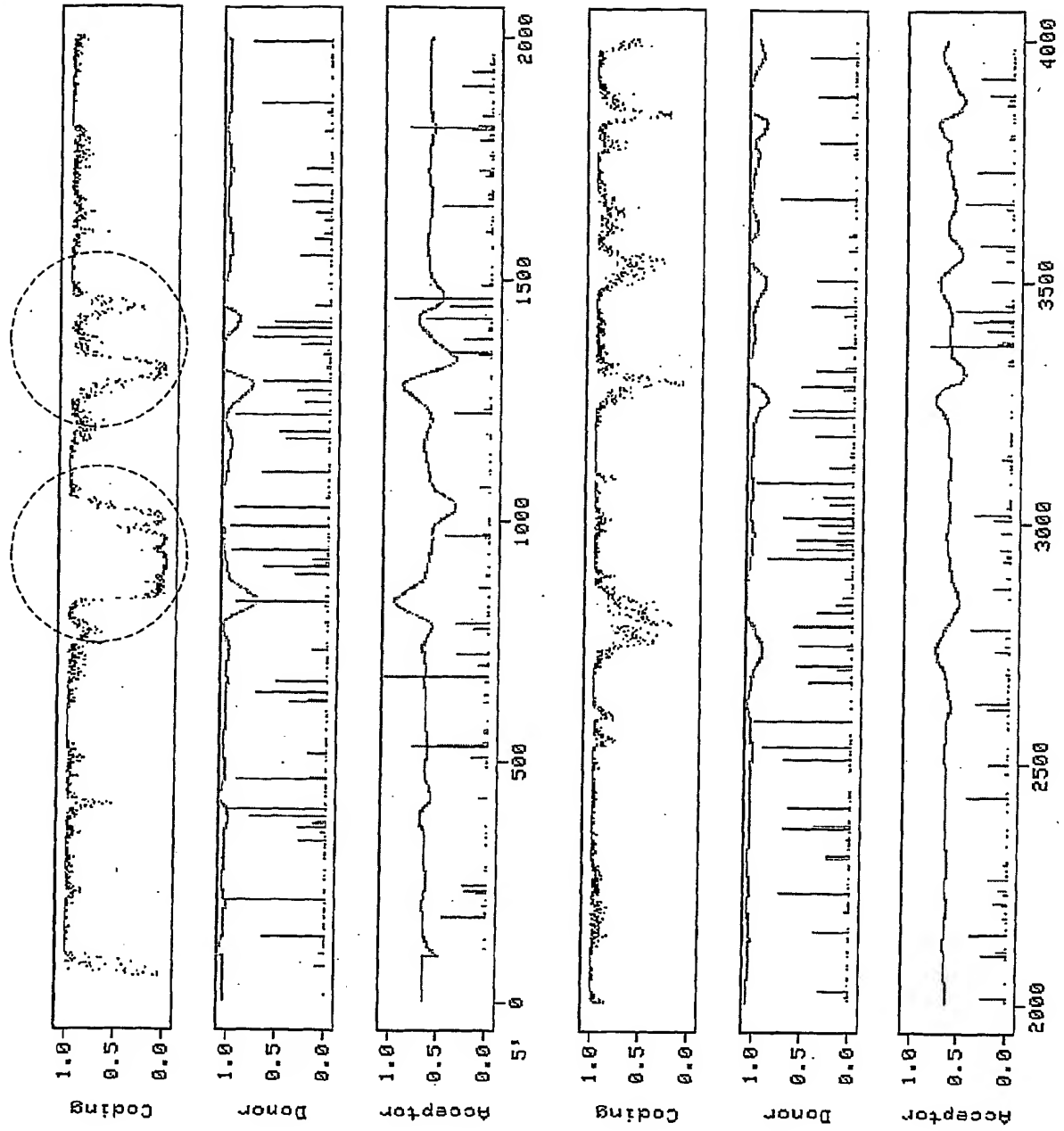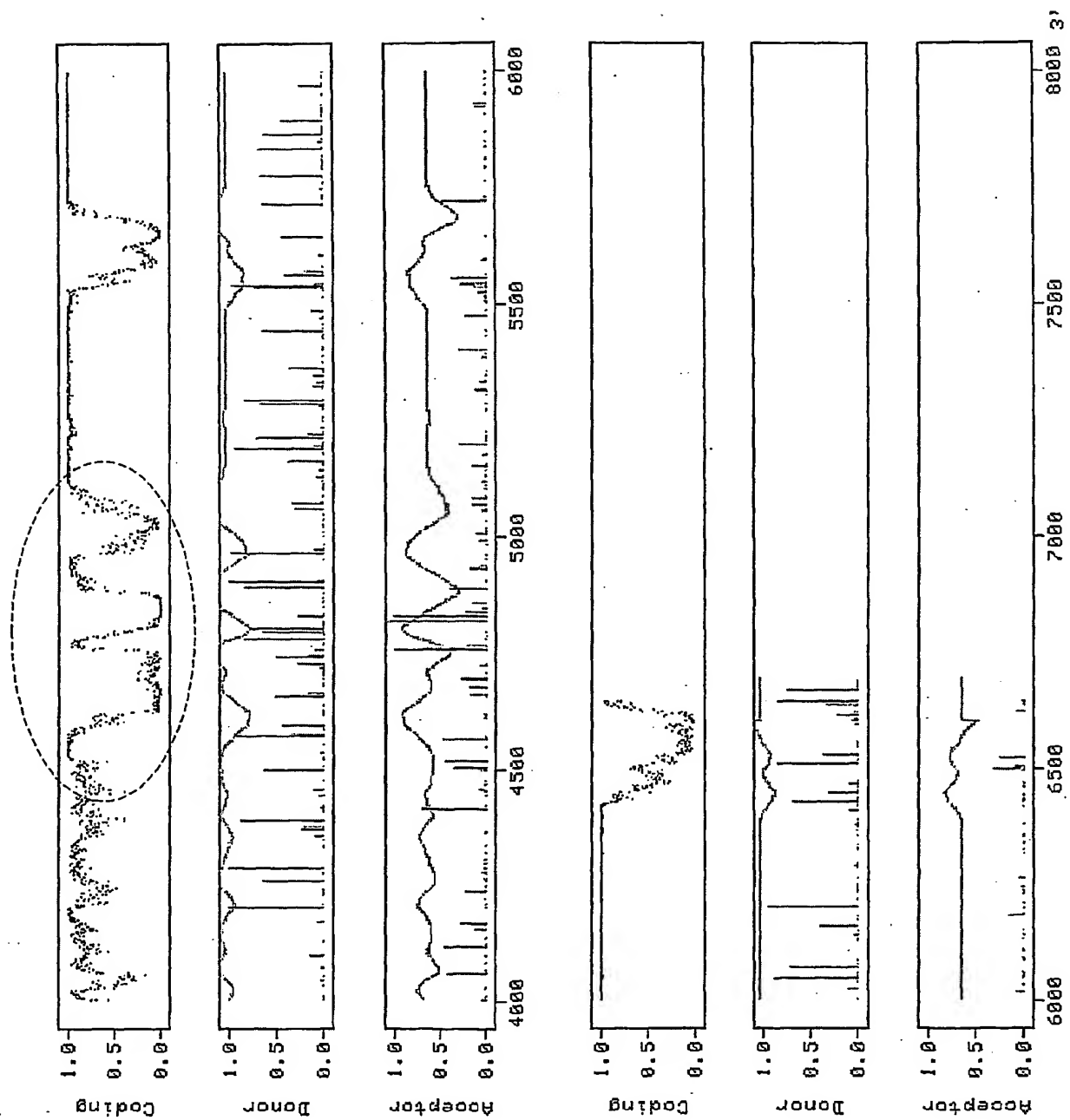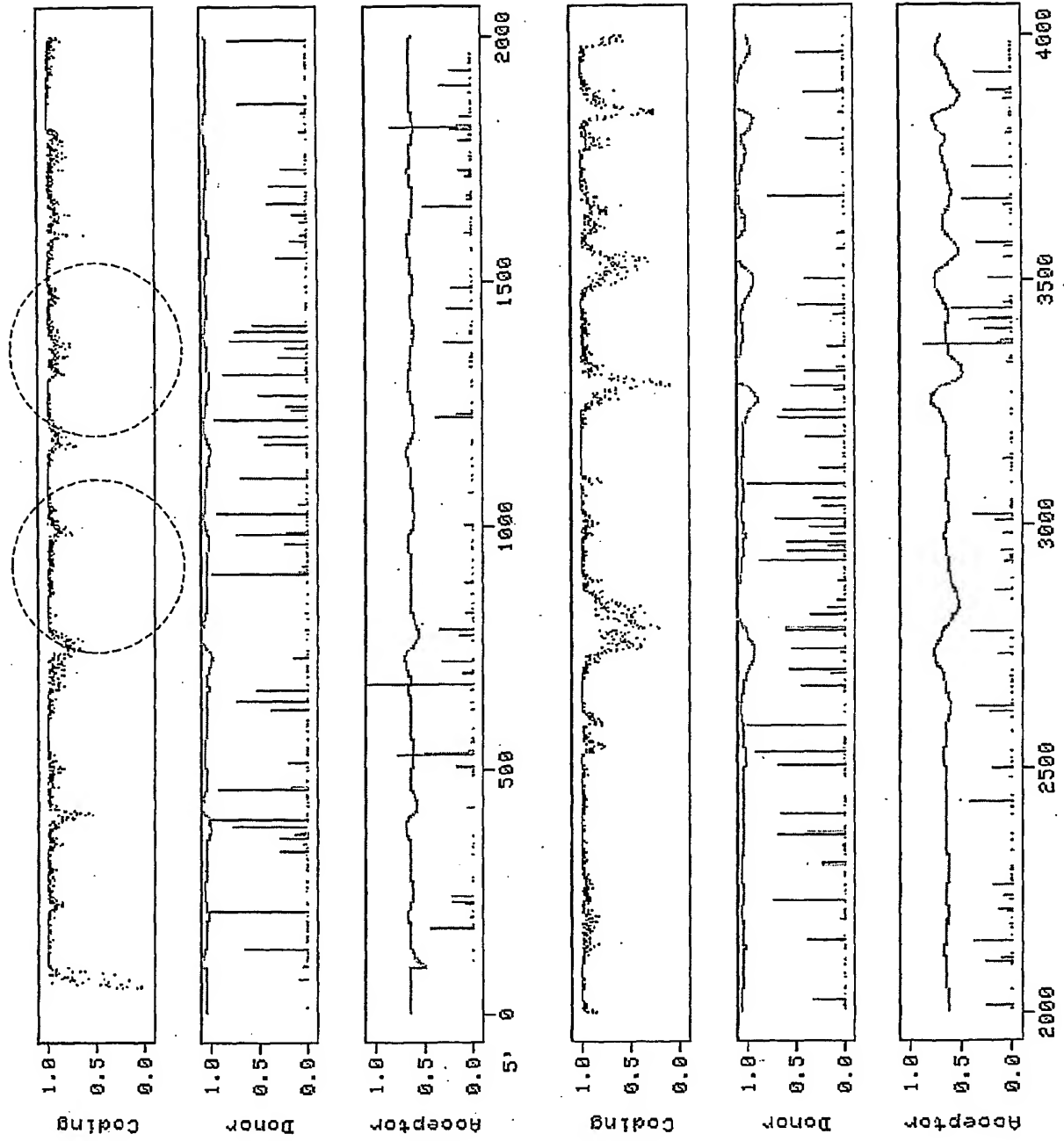sequence of interest

Functional RNA replicon:
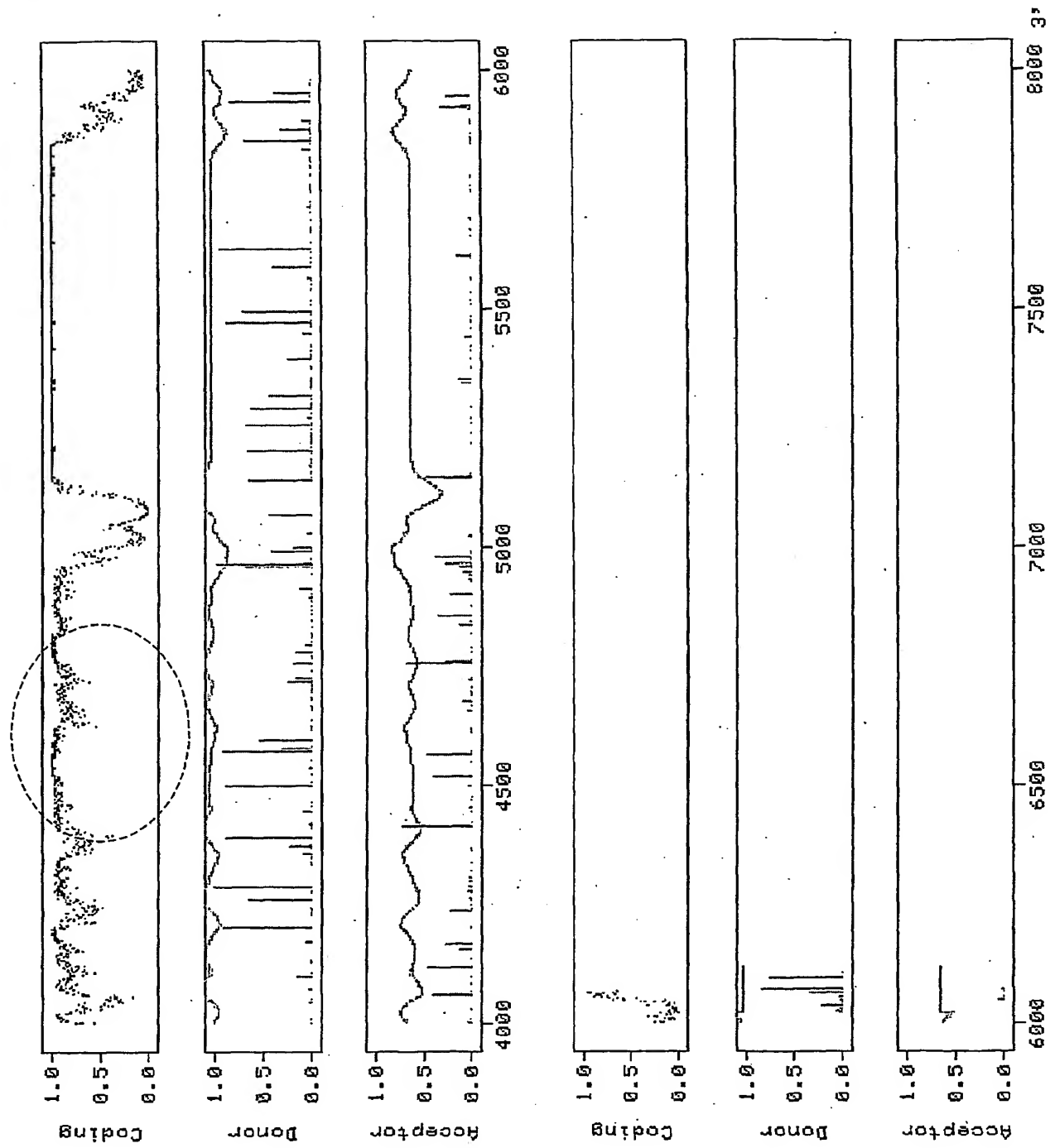expression of sequence of interest

Figure 1

Fig. 2A

Fig. 2B

Fig. 3

Fig. 4
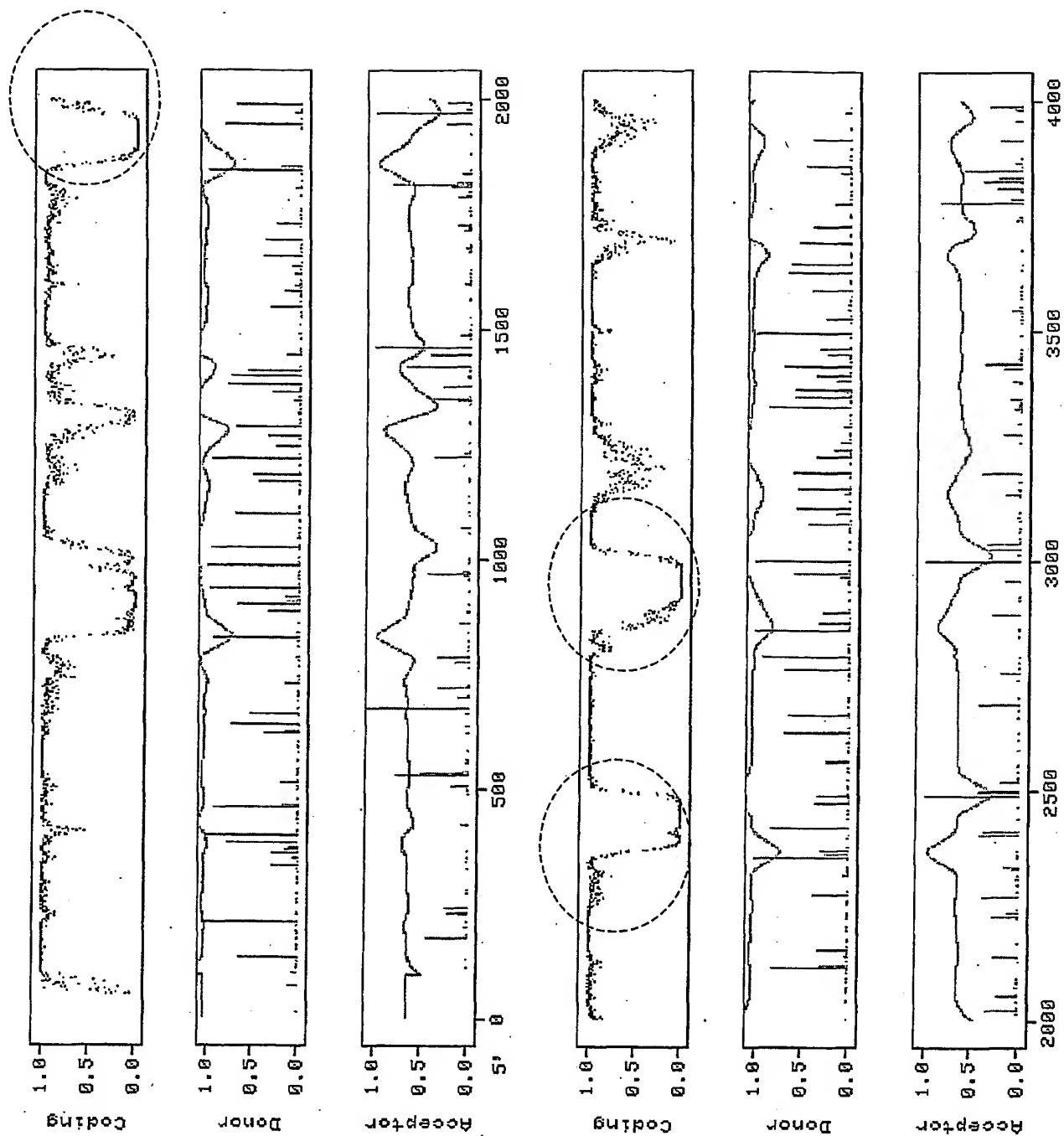
Fig. 5A
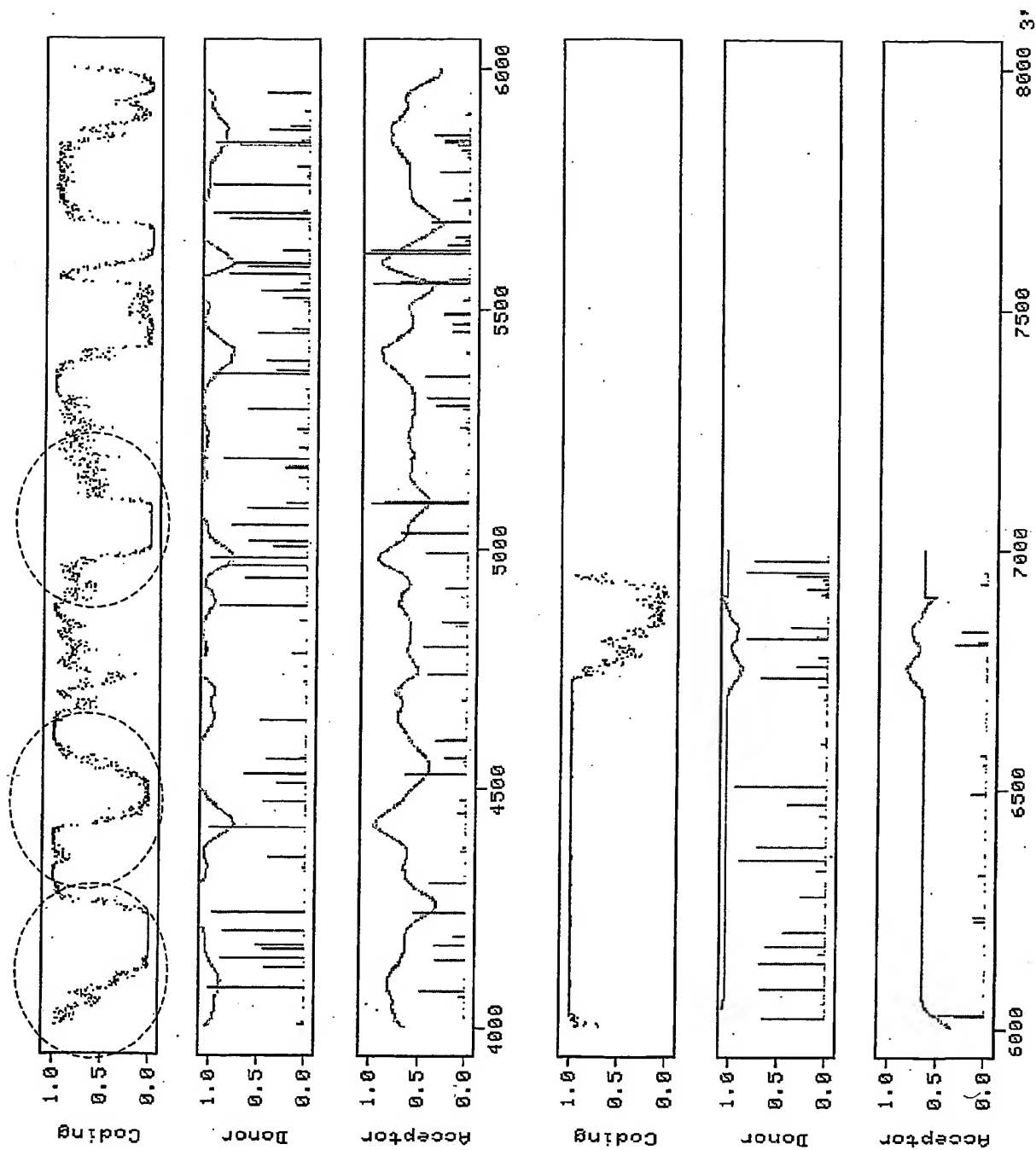
Fig. 5B
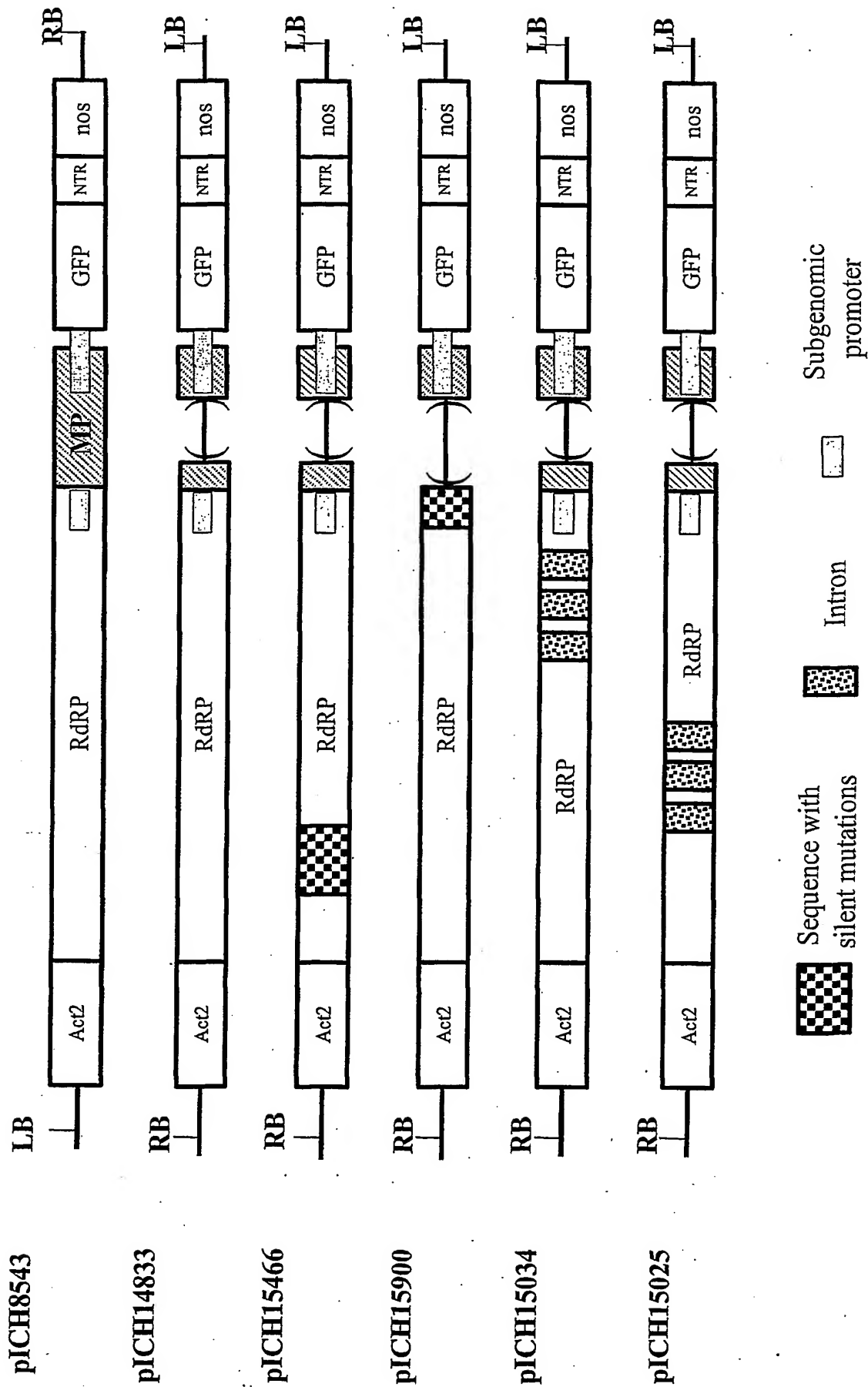
Fig. 6A
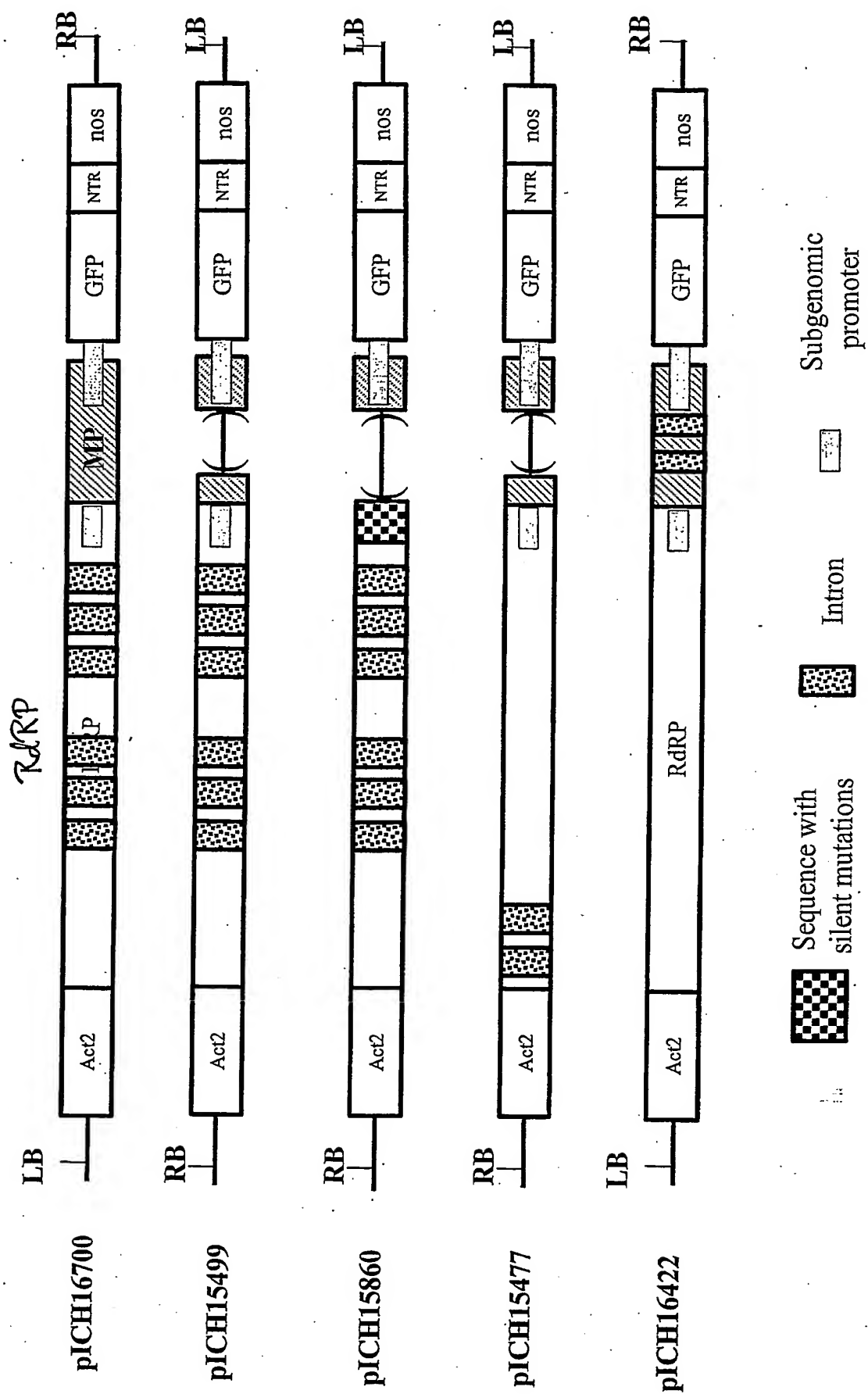
Fig. 6B
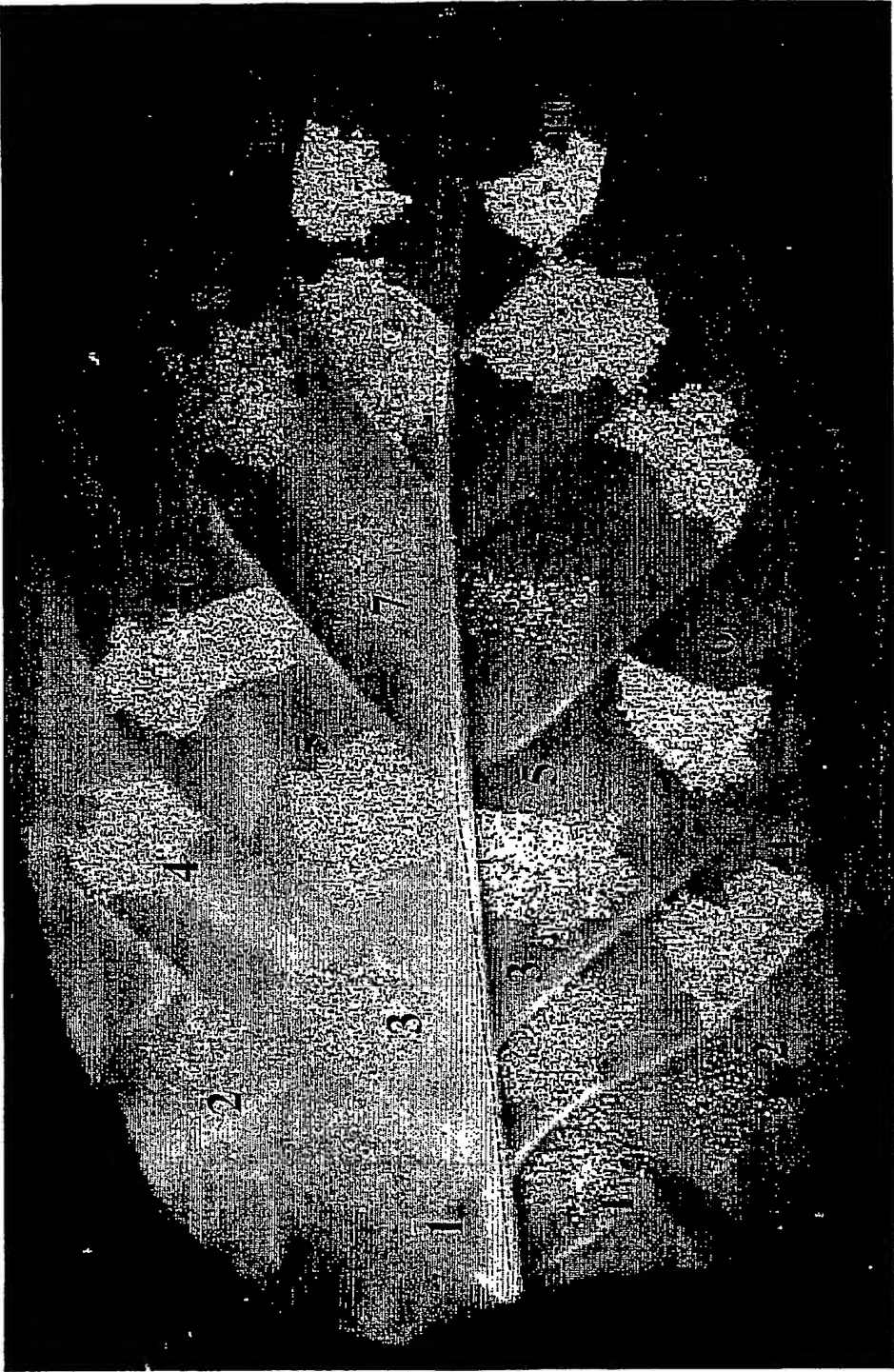
Figure 7A

1. 14833   0 intron
2. 15011   0 intron
3. 15041   1 intron
4. 15466   0 intron   no mp sgp
5. 15025   3 introns   - cryp.int. 1
6. 15034   3 introns

7. 15477   2 introns
8. 15488   1 intron
9. 15900   0 intron   no mp sgp
10. 15499   6 introns
11. 15755   3 introns
12. 15661   3 introns

- MP

+ MP

7. 15477   2 introns
8. 15488   1 intron
9. 15900   0 intron no mp sgp
10. 15499   6 introns

no mp sgp
- cryp int.1

1. 14833   0 intron
2. 15011   0 intron
3. 15041   1 intron
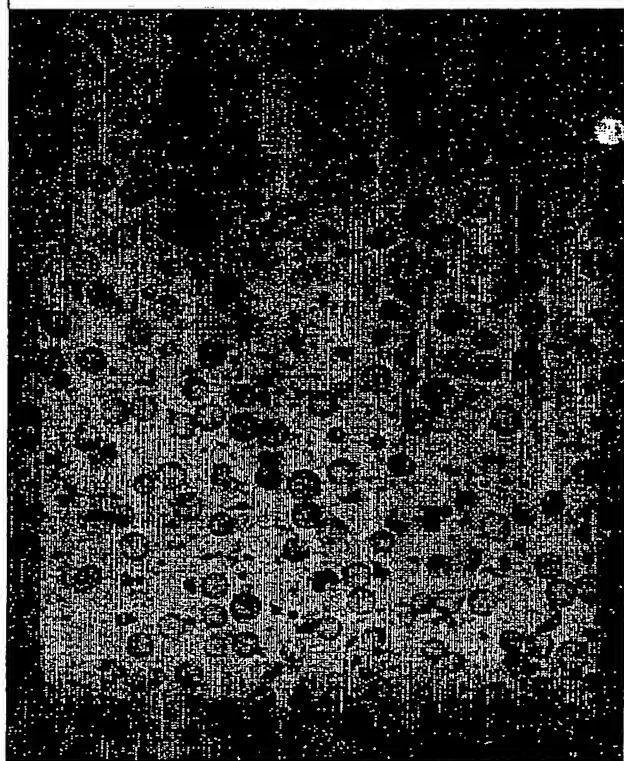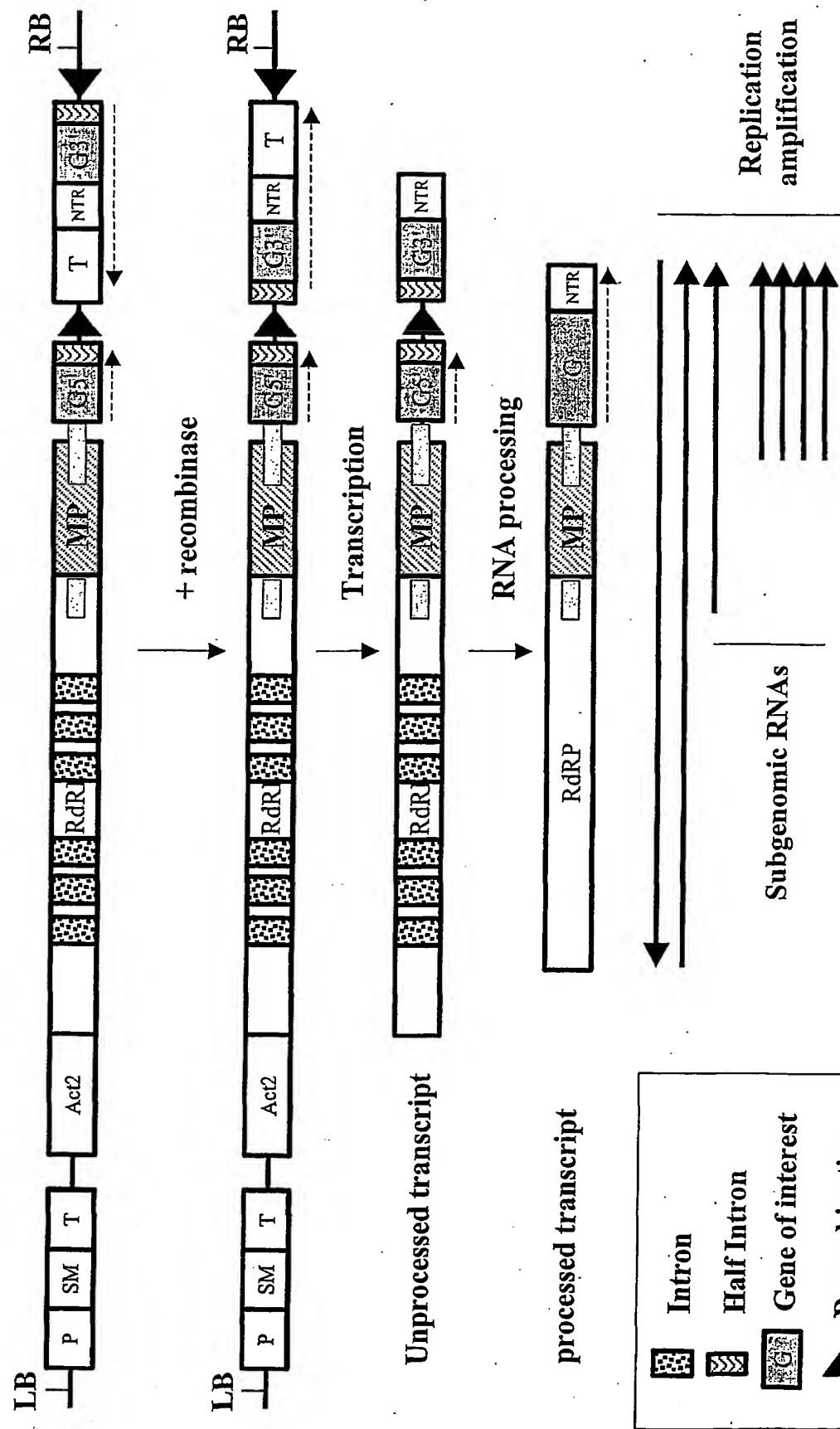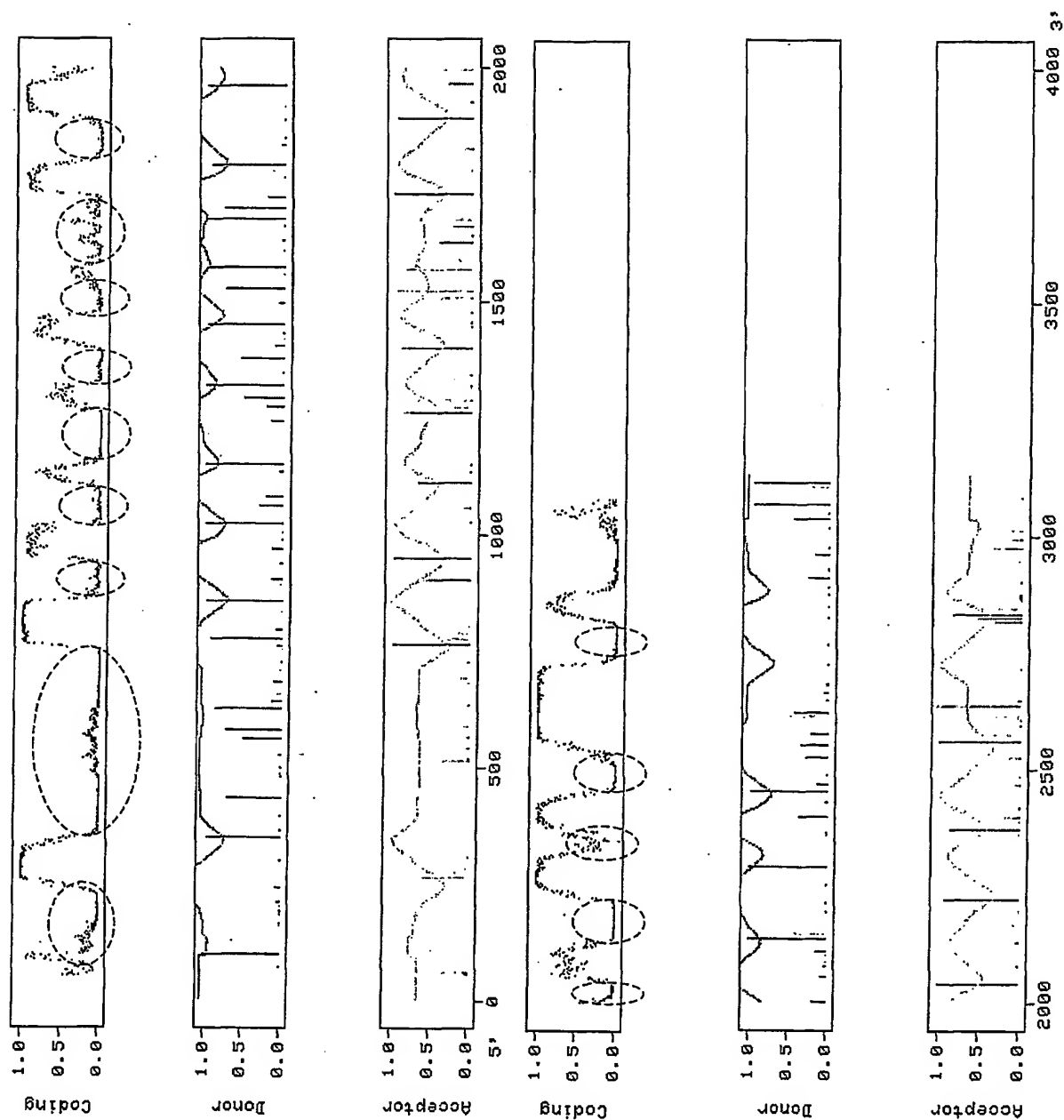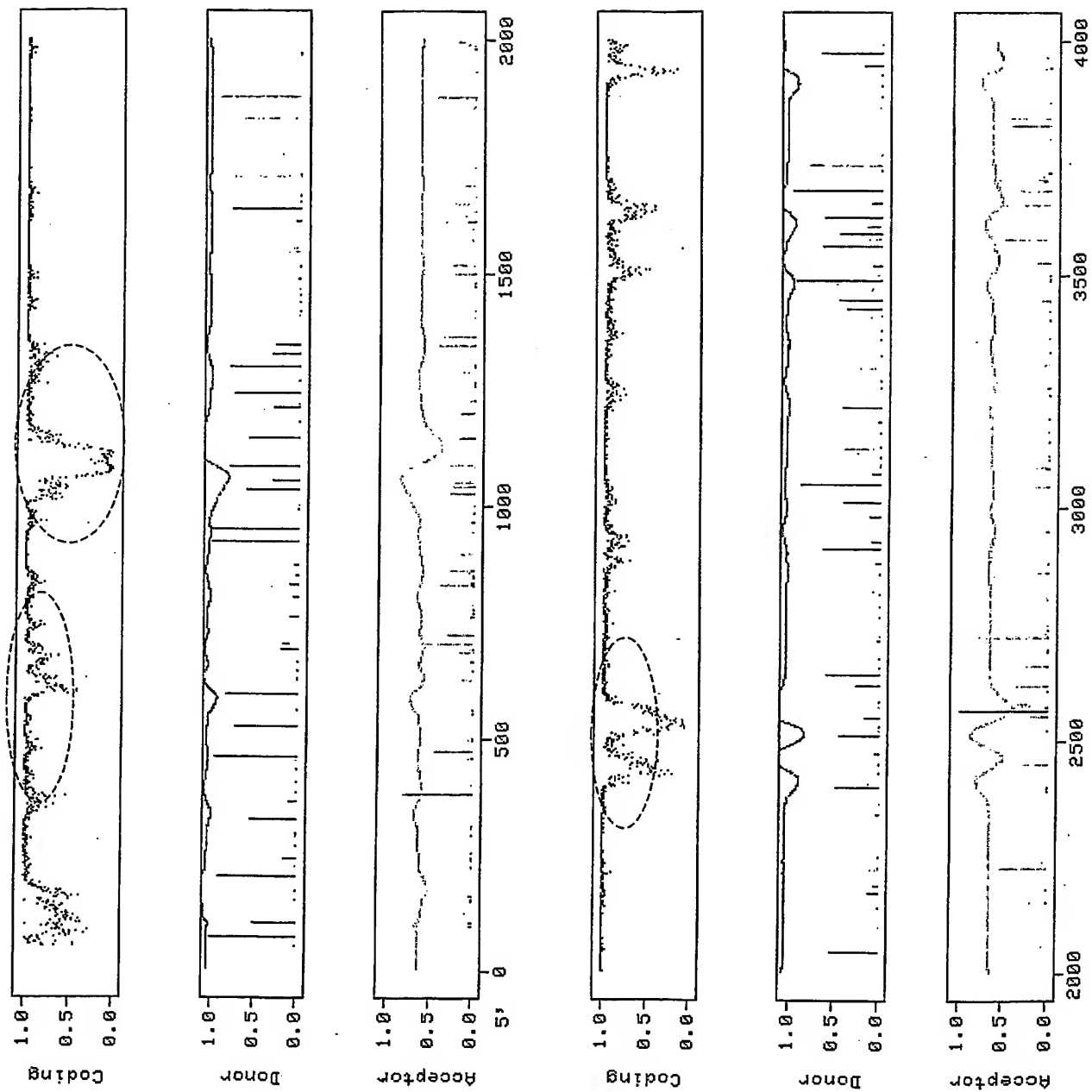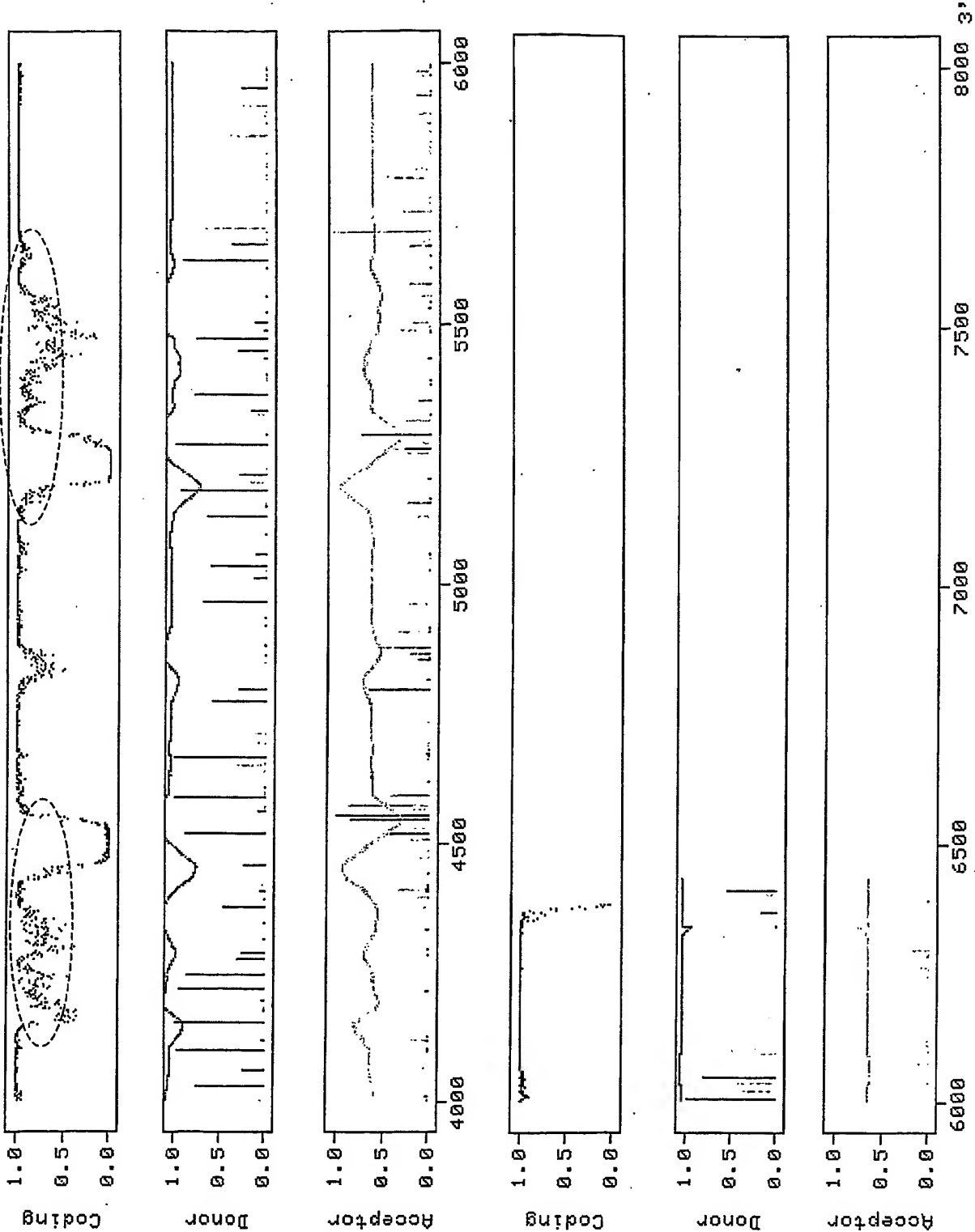4. 15466   0 intron
5. 15025   3 introns
6. 15034   3 introns

Fig. 7B
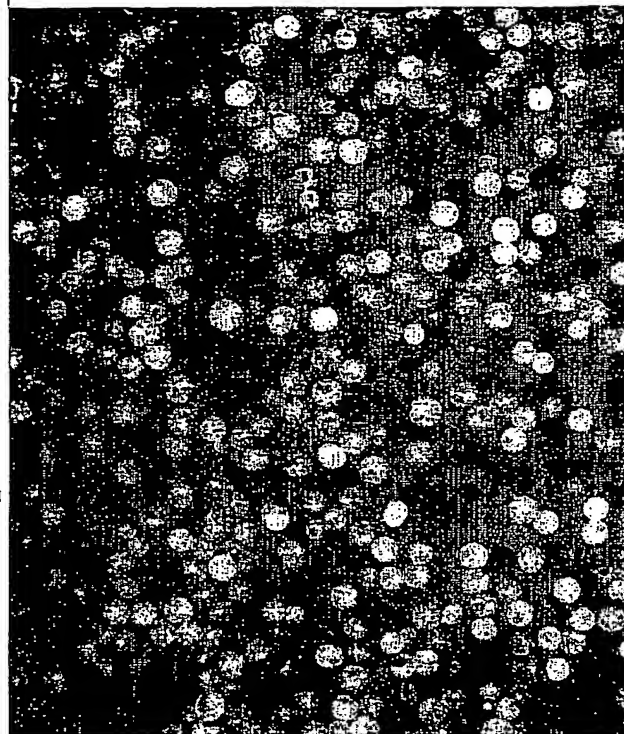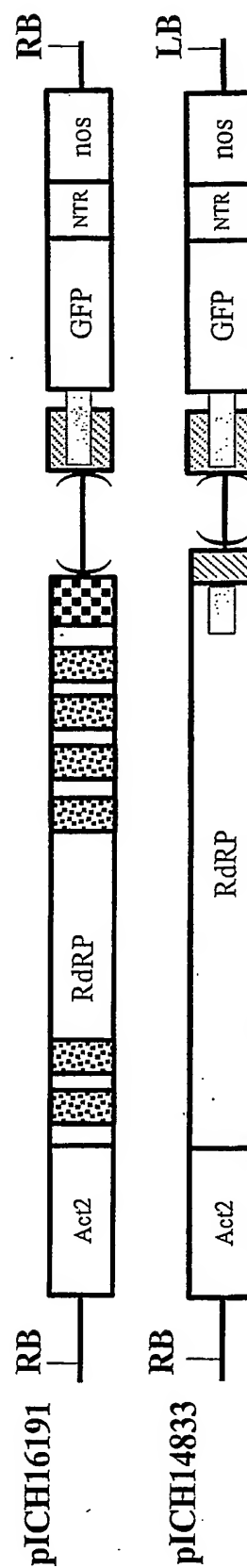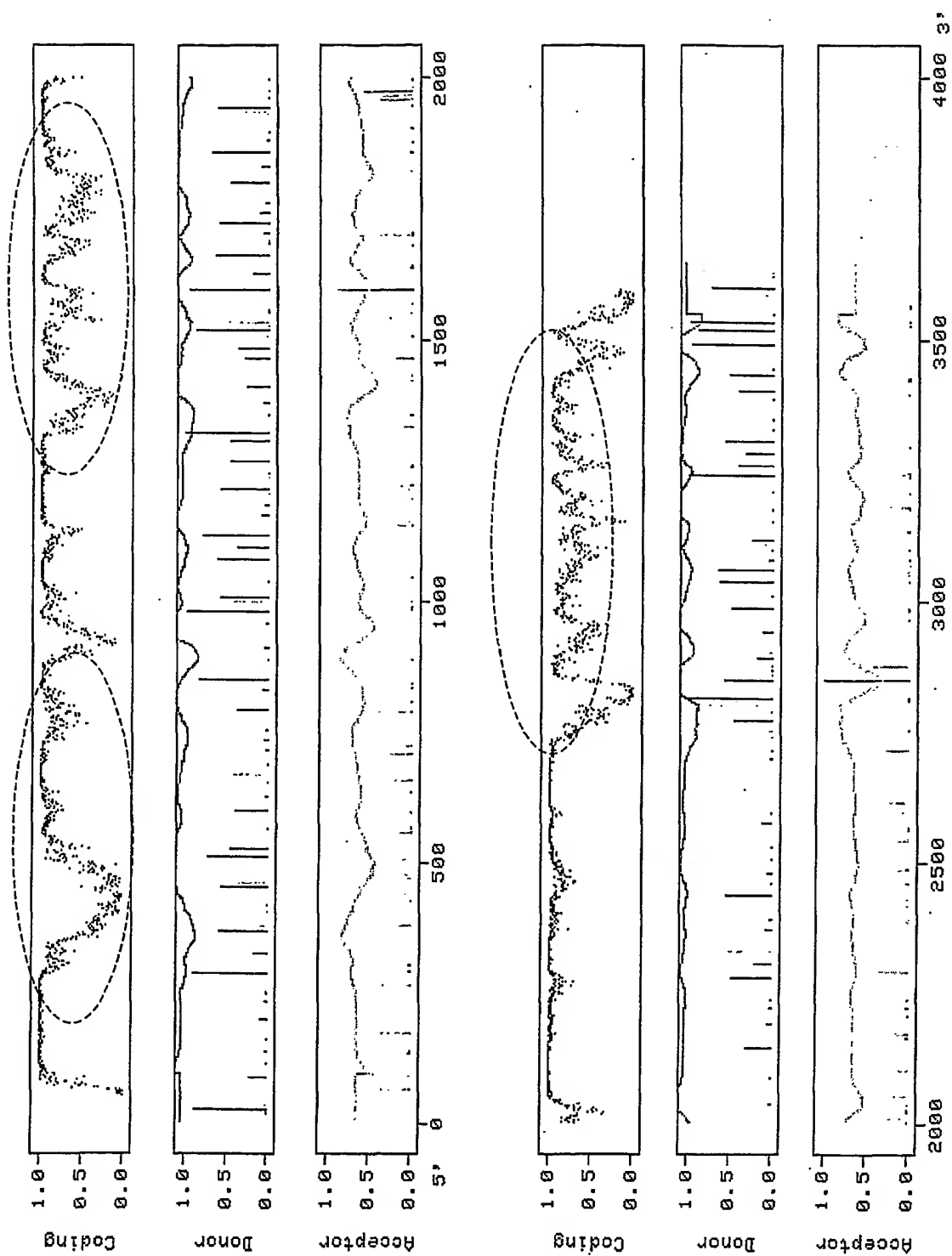
Fig. 7C
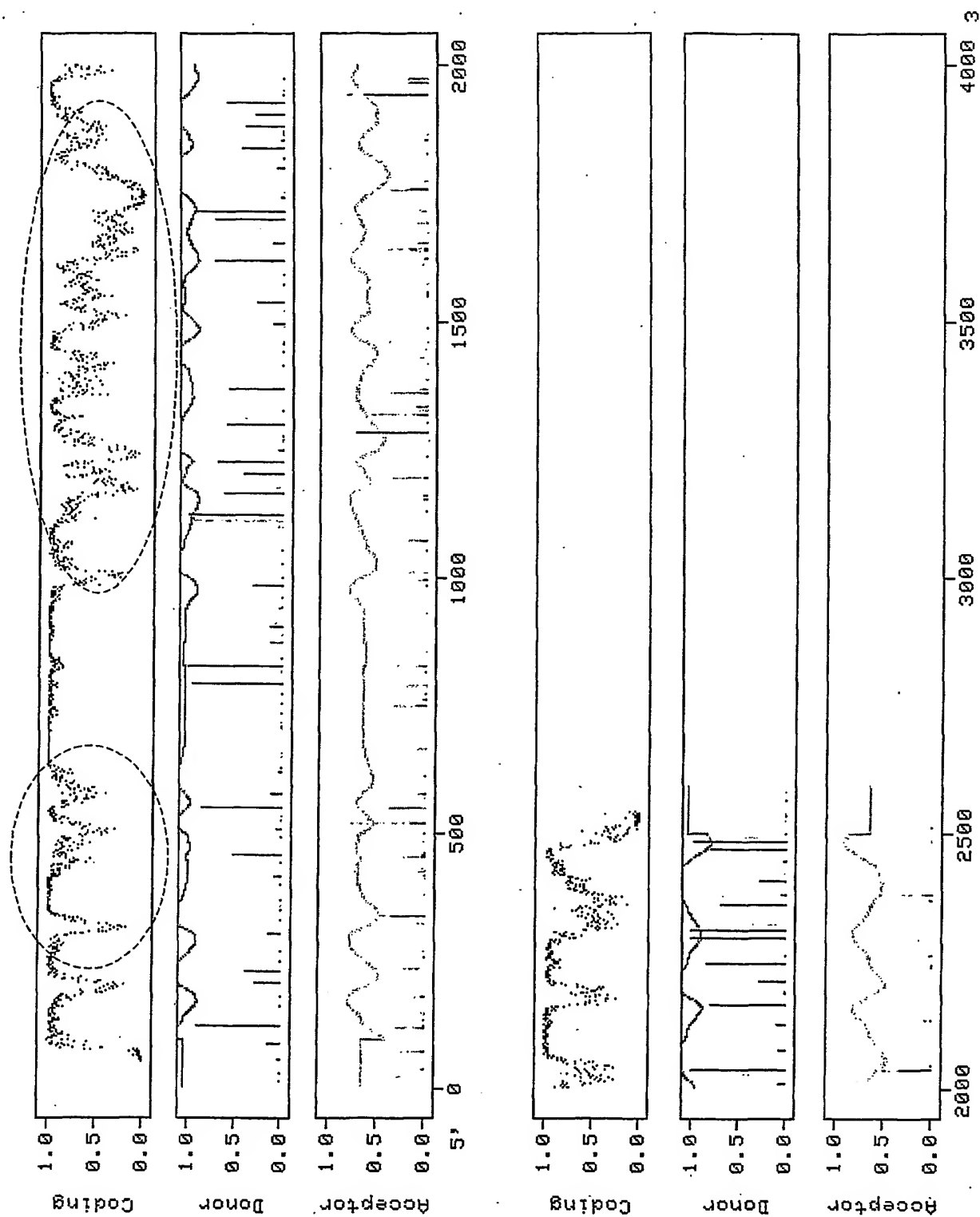
Fig. 8

Fig. 9

Fig. 10A

Fig. 10B

Fig. 11A

Fig. 11B

Fig. 11C
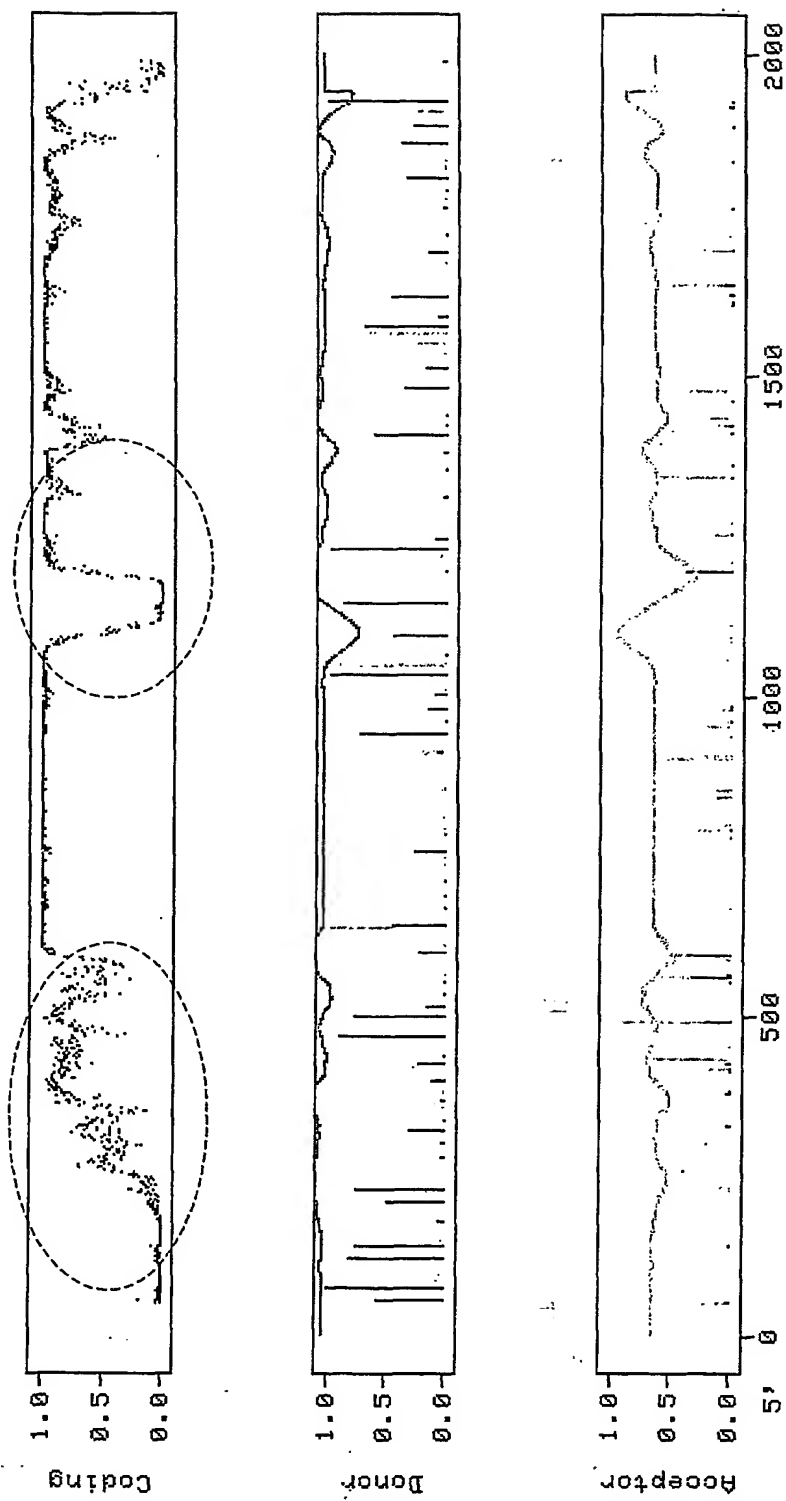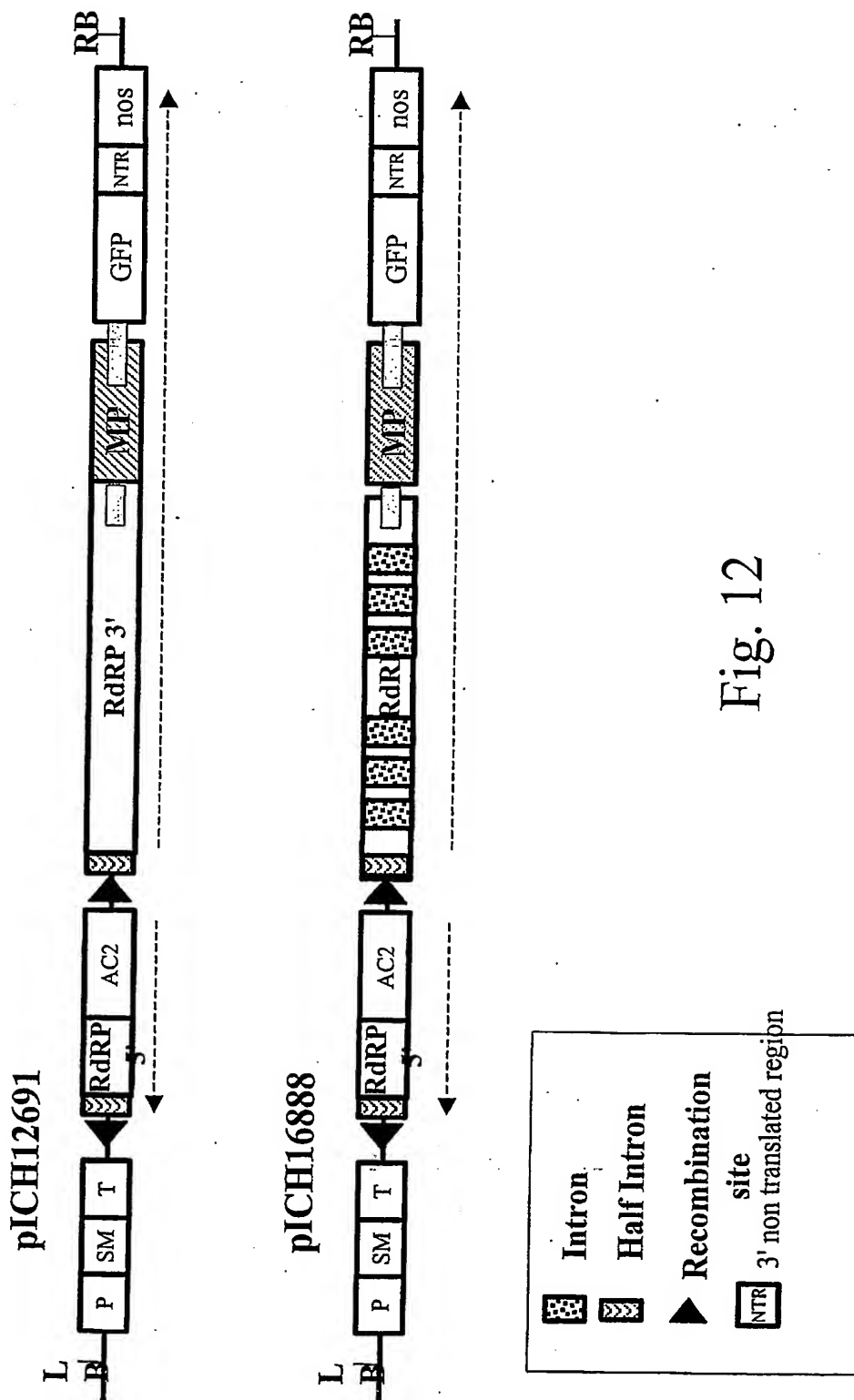
Fig. 12

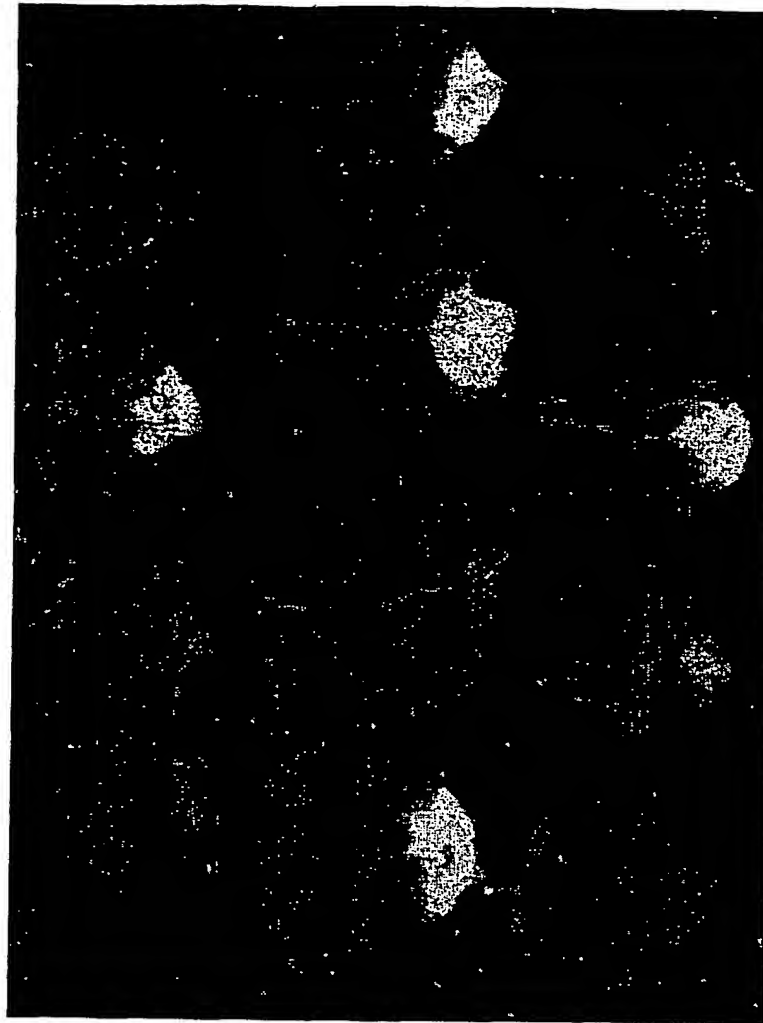pICH16888 transformants
infiltrated with pICH14313 providing integrase

pICH12691
transformants
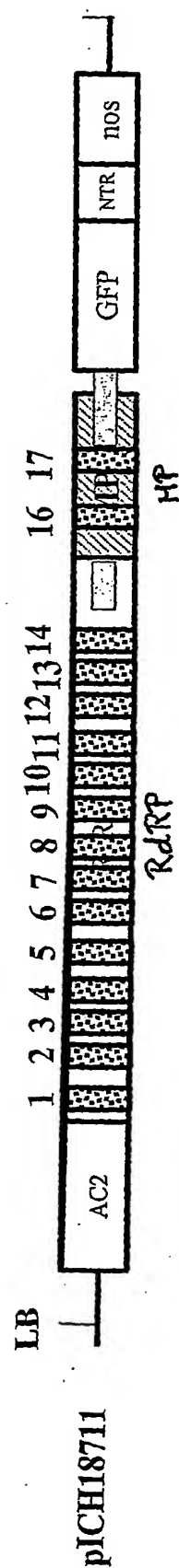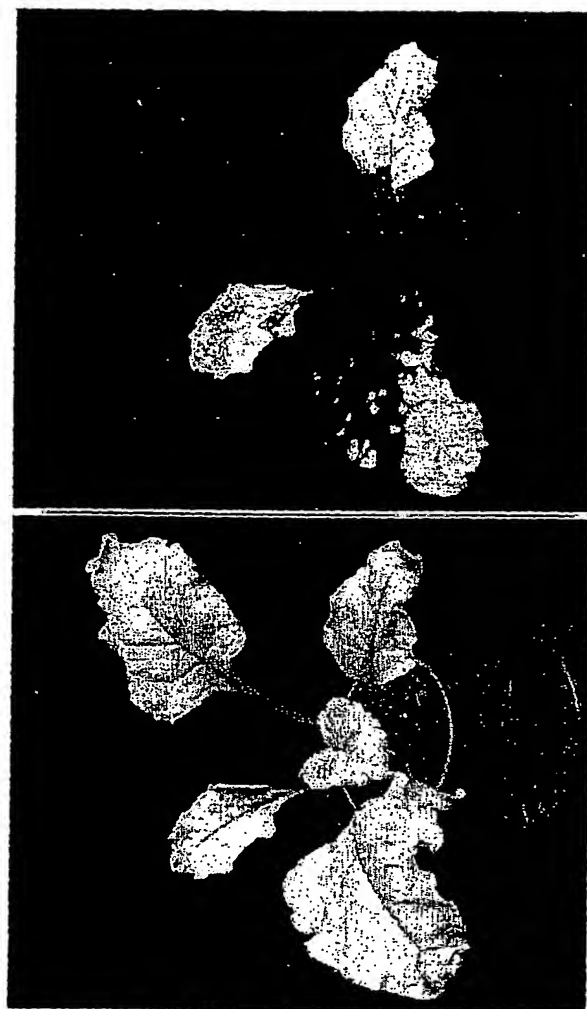infiltrated with pICH10881
providing integrase

Line 6   Line 10

Fig. 13

Fig. 14